## WHAT IS CLAIMED IS:

An isolated or recombinant polynucleotide 1. encoding an antigenic polypeptide comprising:

- at least 17 contiguous amino acids from the mature a)' polypeptide from SEQ ID NO: 2;
  - at least 17 contiguous amino acids from the mature b) polypeptide from SEQ ID NO: 4:
  - at least 17 contiguous amino acids from the mature c) polypeptide from SEQ ID NO: 6:
  - at least 17 contiguous amino acids from the mature d) polypeptide from SEQ ID NO: 8:
  - at least 17 contiguous amino acids from the mature e) polypeptide from SEQ ID NO: 13:
  - at least 17 contiguous amino acids from the f) polypeptide from SEQ ID NO: 15:
  - at Yeast 17 contiguous amino acids from the g) polypeptide from SEQ ID NO: 17: or
  - at least 17 contiguous amino acids from the polypeptide from SEQ ID NO: 19.
- The polynucleotide of Claim 1, encoding all of 2. the polypeptide of:
  - mature SEQ ID NO: 2; a)
  - mature SEQ ID NO: 4; b)
  - mature SEQ ID NO: 6; c)
  - mature SEQ ID NO: 8; d)
  - mature SEQ ID NO: 13; e)
  - f) SEQ ID NO: 15;
- SEQ ID NO: 17; or g)
  - SEO ID NO: 19.
  - The polynucleotide of Claim 1, which hybridizes 3. at 55° C, less than 500 mM salt, and 50% formamide to:
    - the mature polypeptide coding portion of SEQ ID NO: 1;

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- b) the mature polypeptide coding portion of SEQ ID NO: 3;
- c) the mature polypeptide coding portion of SEQ ID NO: 5;
- d) the mature polypeptide coding portion of SEQ ID NO: 7;
  - e) the mature polypeptide coding portion of SEQ ID NO: 12;
  - f) the polypeptide coding portion of SEQ ID NO: 14;
  - g) the polypeptide coding portion of SEQ ID NO: 16; or
  - h) the polypeptide coding portion of SEQ ID NO: 18.

4. The polynucleotide of Claim 3, comprising:

- a) at least 35 contiguous nucleotides of the mature coding portion of SEQ ID NO: 1;
- b) at least 35 contiguous nucleotides of the mature coding portion of SEQ ID NO: 3;
- c) at least 35 contiguous nucleotides of the mature coding portion of SEQ ID NO: 5;
- d) at least 35 contiguous nucleotides of the mature coding portion of SEQ ID NO: 7;
- e) at least 35 contiguous nucleotides of the mature coding portion of SEQ ID NO: 12;
- f) at least 3 contiguous nucleotides of the coding portion of SEQ ID NO: 14;
- g) at least 35 contiguous nucleotides of the coding portion of SEQ ID NO: 16; or
- h) at least 35 contiguous nucleotides of the coding portion of \$EQ ID NO: 18.
  - 5. An expression vector comprising the polynucleotide of Claim 1.
- 35 6. A host cell containing the expression vector of Claim 5, including a eukaryotic cell.

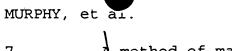
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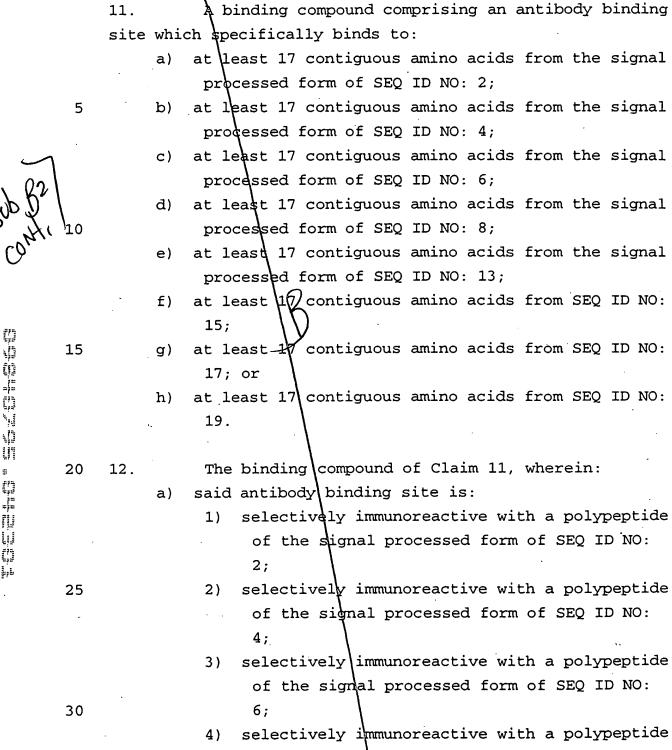
- 7. A method of making an antigenic polypeptide comprising expressing a recombinant polynucleotide of Claim 1.
- 5 8. A method for detecting a polynucleotide of Claim
  1, comprising contacting said polynucleotide with a probe
  that hybridizes, under stringent conditions, to at least 25
  contiguous nucleotides of:
  - a) the polynucleotide comprising the signal processed coding portion of SEQ ID NO: 1;
  - b) the polynucleotide comprising the signal processed coding portion of SEQ ID NO: 3;
  - c) the polymercleotide comprising the signal processed coding portion of SEQ ID NO: 5;
  - d) the polynucleotide comprising the signal processed coding portion of SEQ ID NO: 7;
  - e) the polynucleotide comprising the signal processed coding partion of SEQ ID NO: 12;
  - f) the polynucleotide comprising the coding portion of SEQ ID NO: 14;
  - g) the polynucleotide comprising the coding portion of SEQ ID NO: 16; or
  - h) the polynucleotide comprising the coding portion of SEQ ID NQ: 18;
- 25 to form a duplex, wherein detection of said duplex indicates the presence of said polynucleotide.
- 9. A kit for the detection of a polynucleotide of Claim 1, comprising a compartment containing a probe that hybridizes, under stringent hybridization conditions, to at least 17 contiguous nucleotides of a polynucleotide of Claim 1 to form a duplex.
- 10. The kit of claim 9, wherein said probe is detectably labeled.

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of the signal processed form of SEQ ID NO:

selectively immunoreactive with a polypeptide of the signal processed form of SEQ ID NO:



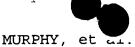
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- 6) | selectively immunoreactive with a polypeptide of SEQ ID NO: 15;
- selectively immunoreactive with a polypeptide 7) of SEQ ID NO: 17;
- delectively immunoreactive with a polypeptide 8) of SEQ ID NO: 19; or
- said binding compound is: b)
  - and antibody molecule; 1)
  - a polyclonal antiserum; 2)
  - detectably labeled;
  - sterike; or 4)
  - in a buffered composition. 5)
- A method using the binding compound of Claim 11, 13. comprising contacting said binding compound with a 15 biological sample comprising an antigen, thereby forming a binding compound: antigen complex.
- The method of Claim 13, wherein said biological 14. sample is from a human, and wherein said binding compound 20 is an antibody.
  - A detection kit comprising said binding compound 15. of Claim 12, and:
- instructional material for the use of said binding 25 compound for said detection; or
  - a compartment providing segregation of said b) binding compound.
- A substantially pure or isolated antigenic 30 16. polypeptide, which binds to said binding composition of Claim 11, and further comprises at least 17 contiguous amino acids from:
  - the signal processed polypeptide from SEQ ID NO:
- b)
  - the signal processed polypeptide from SEQ ID NO: 4;

- 82 MURPHY, et al the signal processed polypeptide from SEQ ID NO:
  - the signal processed polypeptide from SEQ ID NO: d) 8;
  - the signal processed polypeptide from SEQ ID NO: e) 13;
  - SEQ ID NO: 15; f)

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- SEQ ID NO: 17; or g)
- h) SEQ ID NO: 19.

The polypeptide of Claim 16, which: 17.

- comprises at least a fragment of at least 25 contigues amino acid residues from a signal processed primate HDTEA84 protein;
- comprises at least a fragment of at least 25 b) contiguous amino acid residues from a signal processed primate HSLJD37R protein;
- c) comprises at least a fragment of at least 25 contiguous amino acid residues from a signal processed rodent RANKL protein; or
- comprises at least a fragment of at least 25 d) contiguous amino acid residues from primate RANKL protein;
- is a soluble polypeptide; e)
- is detectably labeled; 25 f)
  - is in a sterile composition; g)
  - is in a buffered composition; h)
  - binds to an sialic acid residue; i)
  - is recombinantly produced, or j)
- has a naturally occurring polypeptide sequence. 30
  - The polypeptide of Claim 17, which: 18.
    - comprises at least 17 contiguous amino acids of a) the signal processed SEQ ID NO: 2;
- comprises at least 17 contiguous amino acids of 35 b) the signal processed SEQ ID NO: 4;

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- c) comprises at least 17 contiguous amino acids of the signal processed SEQ ID NO: 6;
- d) comprises at least 17 contiguous amino acids of the signal processed SEQ ID NO: 8;
- e) comprises at least 17 contiguous amino acids of the signal processed SEQ ID NO: 13;
- f) comprises at least 17 contiguous amino acids of SEQ ID NO: 15;
- g) comprises at least 17 contiguous amino acids of SEQ TO NO: 17; or
- h) comprises at least 17 contiguous amino acids of SEO ID NO: 19.
- 19. A method of modulating a precursor cell
  15 physiology or function comprising a step of contacting said cell with:
  - a) a binding compound which binds to said polypeptide of Claim 16;
  - b) an HDTEA84 polypeptide;
  - c) an HSLdD37R polypeptide; or
    - d) a RANKL polypeptide.
  - 20. The method of Claim 19, wherein said contacting is in combination with a TNF family ligand, or an
- 25 antagonist of said TNF family ligand.

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